## The Plant-Based Diet

a healthier way to eat


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- Do you want to lose weight?
- Do you want to feel better?
- Do you want to improve, stabilize, or even reverse a chronic condition such as heart disease, high cholesterol, diabetes, or high blood pressure?
- Would you like to take fewer medications?
- Are you open to changing your diet if it could really improve your health?

If you answered "yes" to any of these questions, then a plant-based eating plan may be for you. This booklet includes information to help you follow a low-fat, whole foods, plant-based diet.

"Eat food. Not too much. Mostly plants." -Michael Pollan

## What is a low-fat, whole foods, plant-based diet?

This eating plan includes lots of plant foods in their whole, unprocessed form, such as vegetables, fruits, beans, lentils, nuts, seeds, whole grains, and small amounts of healthy fats. It does not include animal products, such as meat, poultry, fish, dairy, and eggs. It also does not include processed foods or sweets.

## What are the health benefits of a plant-based diet?

- Lower cholesterol, blood pressure, and blood sugar
- Reversal or prevention of heart disease
- Longer life
- Healthier weight
- Lower risk of cancer and diabetes
- May slow the progression of certain types of cancer
- Improved symptoms of rheumatoid arthritis
- Less inflammation in the body
- Fewer medications
- Lower food costs
- Good for the environment

Best of all, a plant-based diet can be a tasty and enjoyable way to eat!
Need convincing? Try a 30-day challenge! Use the information in this booklet to eat a plant-based diet for the next 30 days and see if it has a positive impact on your health. If it does, continuing with a plant-based diet may be a great option for you.

= good health!

## Your New Food Groups

Use the following chart to help you choose the foods that you will need to thrive on your new eating plan.

> If you want to reverse heart disease, avoid nuts, seeds, and other fats and oils.

## Tips

- If you want to lose weight, choose the lower number of servings of nuts, seeds, starchy vegetables, and whole grains. Talk to your registered dietitian or physician for more information.
- Choose unprocessed, whole foods instead of processed foods most of the time.
- Choose beans more often than vegetarian patties or links.
- Choose whole grains (barley, quinoa, or brown rice) more often than processed grains (bread or pasta).
- Choose fats from whole foods (avocado or olives) more often than processed oils (olive or canola oil).
- If you have diabetes or high triglycerides, limit fruit to 3 servings a day.

> "If it came from a plant, eat it; if it was made in a plant, don't." -Michael Pollan


## Non-Starchy Vegetables

$\left.\begin{array}{l|l|l|l}\hline \text { Examples of Food Choices } & \text { Daily Servings } & \text { Serving Size } & \text { Protein } \\ \hline \begin{array}{l}\text { Spinach, kale, Swiss chard, mustard } \\ \text { greens, collard greens, broccoli, bok } \\ \text { choy, carrots, cauliflower, asparagus, } \\ \text { green beans, brussels sprouts, celery, }\end{array} & \begin{array}{l}\text { Unlimited, but eat } \\ \text { at least } 6 \text { servings } \\ \text { a day. Include at } \\ \text { eggplant, mushrooms, onions, garlic, } \\ \text { tomatoes, lettuce, sugar snap peas, } \\ \text { sumbing of }\end{array} & 1 \text { cup } & 2 \text { grams } \\ \text { leafy green } \\ \text { vegetables a day. }\end{array}\right)$

## Starchy Vegetables

| Examples of Food Choices | Daily Servings | Serving Size | Protein |
| :--- | :--- | :--- | :--- |
| Potatoes,* yams, winter squash, corn,* <br> green peas, cassava (yuca), plantains | $2-4$ servings | $1 / 2$ cup | 2 grams |

## Fruits

| Examples of Food Choices | Daily Servings | Serving Size | Protein |
| :--- | :--- | :--- | :--- |
| Apples, oranges, bananas, berries, <br> melon, papaya, grapes, mango, <br> pineapple, kiwi, apricots | $2-4$ servings | 1 medium <br> piece | $1 / 2-1$ <br> gram |

## Beans, Peas, Lentils, or Meat Alternatives

| Examples of Food Choices | Daily Servings | Serving Size | Protein |
| :--- | :--- | :--- | :--- |
| Whole foods: Kidney, black, <br> garbanzo, pinto, great northern, and <br> adzuki beans; lentils; edamame* | $2-5$ servings | $1 / 2$ cup <br> cooked <br> beans | $7-10$ <br> grams |
| (green soybeans); green and black- <br> eyed peas; tofu;* tempeh |  |  |  |
| Processed: Processed soy* or other <br> protein patties or links (choose very <br> rarely) |  |  |  |

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## Whole Grains

| Examples of Food Choices | Daily Servings | Serving Size | Protein |
| :---: | :---: | :---: | :---: |
| Whole grains: Bulgur, quinoa, oats, brown or wild rice, buckwheat, barley, amaranth, farro, whole wheat, rye, millet, sorghum <br> Processed grains: Whole-grain bread, whole-grain unsweetened cereal, whole-wheat tortillas, whole-wheat pasta | 5-8 servings | $1 / 2$ cup cooked grain 3/4 cup dry cereal 1 slice bread 1 small tortilla | $4-8$ <br> grams |

Nuts and Seeds (avoid if you have heart disease)

| Examples of Food Choices | Daily Servings | Serving Size | Protein |
| :--- | :--- | :--- | :--- |
| Almonds, cashews, sunflower seeds, <br> walnuts, pistachios, flaxseeds, chia | $1-4$ servings | 1 ounce <br> $(1 / 4$ cup $)$ nuts | $4-8$ <br> seeds, nut butter |

Fats and Oils (avoid if you have heart disease)

| Examples of Food Choices | Daily Servings | Serving Size | Protein |
| :--- | :--- | :--- | :--- |
| Whole foods: Avocados, olives | $0-2$ servings | $1 / 4$ avocado | 0 grams |
| Processed oils: Canola, extra virgin <br> olive, and flaxseed oil |  | 8 large olives |  |

## Dairy Alternatives

| Examples of Food Choices | Daily Servings | Serving Size | Protein |
| :--- | :--- | :--- | :--- |
| Unsweetened milks, such as soy, <br> almond, rice, and hemp (look for <br> brands fortified with vitamin B12); <br> soy, rice, and almond milk cheeses | $0-2$ servings | 1 cup milk | $1-9$ |

## Tips to Get Started

- Think about the meatless meals you already cook at home. This may include whole-wheat pasta with marinara sauce; black beans and rice; or lentil soup and salad.
- Change a favorite recipe to be plant-based.
- Make burritos or tacos with beans, rice, and vegetables without the meat and cheese.
- Prepare chili with beans and no meat.
- Replace burgers with veggie burgers or grilled portobello mushrooms.
- Make kebabs with vegetables such as onions, bell peppers, summer squash, and mushrooms.
- Make lentil or split pea soup without adding meat or using chicken or beef broth.
- Try some new recipes. Check the end of this booklet for a list of books and websites that have recipes you can try. You can also get cookbooks from your local library or Kaiser Permanente Healthy Living Store.
- Frozen fruits and vegetables are an easy and low-cost way to eat more plants.

- When you cook beans from scratch, the quick-soak method can help remove some of the indigestible sugars that cause gas.
- Put the beans in a large pot and cover with 2 inches of water.
- Bring to a boil for 3 minutes.
- Cover and set aside for 1 to 4 hours.
- Rinse and drain well.
- Make sure to drink plenty of water. It is best to avoid juice, soda, and other sugary drinks.
- Choose organic foods when possible, especially corn, vegetables, fruits, and soy products.
- Check out a local farmers market for good deals on produce.
- Sometimes, cooking plant-based meals can take more time. To save time:
- Make a larger pot of beans or lentils and freeze some for later.
- Buy precut fresh or frozen vegetables.
- Buy precooked grains, such as barley, farro, or brown and wild rice.
- When baking yams or potatoes, make a few extra to use in the next meal.
- Use canned beans, including nonfat refried beans.
- Try firm tofu cut in slices and seasoned with spices and green onions.
- Use spices and fresh herbs to add flavor.
- If your family is not following a plant-based diet with you:
- Cook meat separately and add it to the other plant-based foods.
- Encourage your family to try more meatless meals.
- Try new recipes they might enjoy, such as five-bean chili without meat or portobello mushroom "burgers."
- You might need to add a few items to your kitchen, including: - A good chef's knife to cut vegetables, fruits, and other plant-based foods
- A blender or food processor
- A large pot, pressure cooker, or crockpot to cook beans
- A nonstick pan


## Tips to Use Less Oil

- Sauté vegetables with a small amount of water or vegetable broth instead of oil. You can also roast or bake vegetables without oil.
- Replace oil in baked goods with bananas, apples, applesauce, soaked raisins or prunes, dates, or tofu.
- Make oil-free salad dressing by adding extra vinegar or juice in place of oil with garlic, spices, and fresh herbs for flavor. You can also blend a small amount of hummus with vinegar or lemon juice and mustard.


## Creating Plant-Based Meals

## The Plate Method

Use the plate method to portion your food in an easy and healthy way for lunch and dinner.

- Fill $1 / 2$ of your plate with non-starchy vegetables.
- Fill $1 / 4$ of your plate with a healthy grain or starchy vegetable.
- Fill $1 / 4$ of your plate with a plant-based protein.
- Add a fruit, a salad, and 1 ounce of nuts.


## The Plate Method Examples



## Meal Ideas

Breakfast: Have oatmeal, quinoa, or barley with nuts, fruit, and unsweetened almond, rice, hemp, or soy milk. An ounce or two of nuts and a piece of fruit is a quick and easy option. You can also make a smoothie with a tablespoon of almond butter, a banana, some unsweetened almond milk, and even a handful of kale or other green leafy vegetable, or try a tofu scramble with vegetables.

Lunch and Dinner: Have a large salad or a large serving of cooked non-starchy vegetables with beans and potatoes or a whole grain.

## Sample Menus

## DAY ONE

## Breakfast

- Breakfast burrito with beans and vegetables
- Hot tea or coffee


## Lunch

- Whole-wheat pita with hummus, tomatoes, red onions, and cucumber
- Kale sautéed with vegetable broth
- Salad with vegetables and balsamic vinegar
- Banana
- Unsweetened tea


## Dinner

- Grilled portobello mushroom "burger" with caramelized onions
- Quinoa and bean salad
- Broccoli
- Kale salad
- Strawberries
- Unsweetened tea


## Breakfast

- Oatmeal or barley with blueberries, walnuts, and soy milk
- Hot tea or coffee


## Lunch

- Split pea, carrot, and barley soup
- Salad with spring mix, vegetables, kidney beans, and balsamic vinegar and mustard
- Orange
- Sparkling mineral water


## Dinner

- Tacos with whole-grain tortillas, grilled vegetables, potatoes, avocado, and salsa
- Pinto beans
- Salad with vegetables and balsamic vinegar and mustard
- Mango
- Sparkling mineral water


## Tips for Eating Out

Many restaurants offer some meatless options or side dishes.
Restaurants are often willing to make changes to menu items by switching to meatless sauces, removing meat from stir-fries, adding vegetables or pasta in place of meat, and using less or no oil.

Restaurants that make food to order may be more willing to make these changes. Many ethnic restaurants, such as Indian, Chinese, and Thai, offer a variety of plant-based dishes and sides. Check the website happycow.net to find a meatless restaurant near you.

## Special Nutrients to Consider

## Protein

Protein is in every cell of the body. It is used to build and repair muscles, bone, skin, and the immune system. We also need it to make hormones and enzymes. Proteins are made up of amino acids. Your body can make some of the amino acids, but not all of them. The ones your body cannot make are called essential. You can easily meet your protein needs each day from plant foods such as beans, peas, nuts, seeds, soy products, whole grains, and vegetables. Quinoa, a seed that acts like a grain, is a great source of protein and all the essential amino acids.

Adults need about 0.36 grams of protein per pound of body weight a day. Multiply your weight by 0.36 to find out how much protein you need. For example, if you weigh 160 pounds: $160 \times 0.36=$ about 58 grams of protein a day.

## B12

Your body needs vitamin B12 to make red blood cells and for nerve function. If you don't get enough B12, you can develop anemia or nerve damage. Most B12 comes from animal foods. B12 is found in some fortified foods such as:

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\begin{array}{ll}
\text { - Cereals } & \text { - Meat substitutes } \\
\text { - Rice or hemp milk } & \text { - Nutritional yeast }
\end{array}
$$

Read labels for these products to make sure B12 has been added.
Because it may not be easy to get enough B12 from fortified foods, it may be best to take a supplement. As you get older, your body is less able to absorb B12. Your physician may suggest a supplement or shot to help prevent a deficiency. Talk with your physician or registered dietitian for more information.

## Iron

Iron is a mineral in the blood that carries oxygen. Getting enough iron is important for everyone, especially pregnant women, women of
 childbearing age, children, and infants. Iron-rich plant foods include whole-grain breads and cereals, dried beans and peas, dark green leafy vegetables, dried fruits, nuts, and seeds. Some foods, such as breakfast cereals, are fortified with iron. The type of iron found in plant foods is not absorbed as easily as the iron in animal products. However, eating iron-rich foods along with vitamin C can help your body better use the iron. Some foods with vitamin C are oranges, mangos, kiwis, strawberries, red peppers, tomatoes, broccoli, and bok choy. Eat several servings of iron-rich foods a day. Some people may need to take a supplement.

## Calcium

Calcium helps build bones and teeth. It is also important for the function of the heart, muscles, and nerves. Good sources of calcium
 are Chinese cabbage, bok choy, kale, calcium-set tofu, and broccoli. There are also many calcium-fortified foods, such as soy or almond milk and cereal. Eat several servings of foods high in calcium each day. You can also take a supplement.

## Zinc

Zinc is important for the immune system, wound healing, and blood sugar control. Good sources are whole grains, tofu, tempeh, beans, peas, lentils, nuts, seeds, and fortified cereals. Compounds in plant foods called phytates keep zinc from being absorbed. This can be improved by soaking beans, grains, and seeds in water for several hours before cooking. Eating sprouted grains and beans, and leavened
grains, such as bread, instead of crackers also increases absorption. Some foods are fortified with zinc. Eat several servings of foods high in zinc. You can also take a supplement.

## Vitamin D

Vitamin D is needed for strong bones. It is also needed for muscles and nerves and the immune system to work properly. Very few foods have vitamin D . We get most of our vitamin D when the skin is exposed to the sun, but many people do not make enough from sun exposure alone. Some foods, such as soy or almond milk and cereal have added vitamin D. You may need to take a supplement. Talk with your physician for more information.

## Omega-3 Fatty Acids

Omega-3 fatty acids, such as EPA and DHA found in fatty fish, may lower the risk of heart disease and help the immune system and brain. Good sources of plant-based omega-3 fats include ground flaxseeds and flaxseed oil, walnuts, chia seeds, and organic canola oil. Plant-based omega-3s don't easily convert to EPA and DHA in the body. For some people, including pregnant women or people with chronic health conditions, taking a micro-algae supplement may be helpful. Ask your physician for more information.

## Tell Your Physician You Are on a Plant-Based Diet

Making a lot of healthy changes to your diet can lower your blood sugar, blood pressure, and cholesterol. A plant-based diet can also affect thyroid or blood-thinning medications [warfarin (Coumadin)]. If you are taking medications, make sure to tell your physician that you are on a plant-based diet. He or she may need to change some or all of your medications. Your health condition may need to be monitored more often for a short time.

## My Personal Action Plan

Action plans are short-term plans that help you reach your goal to eat more plant foods. They can greatly improve your chances of success. The plan must include a specific action or behavior that you want to do and know that you will be able to accomplish. Your action plan must answer the questions:

- What are you going to do?
- How much are you going to do?
- When are you going to do it?
- How many days of the week are you going to do it?


## Example:

This week I will eat a salad (what) made with 3 cups (how much) of sun-dried tomatoes, carrots, artichoke hearts, kidney beans, and cucumber with dinner (when) on Monday, Wednesday, and Friday (how many).


This week I will:
$\qquad$

How confident are you that you will succeed with your plan?

$0=$ not confident at all $\quad 10=$ totally confident

Your confidence level should be 7 or higher.

I will make a commitment to $\qquad$
(friend or family member)
to follow my action plan and report back on how I did.

Did you complete your action plan? $\square$ Yes $\square$ No

Name: $\qquad$
Date: $\qquad$

Congratulations on taking this important step to increase your health and wellness!

If you find you cannot do a plant-based diet 100 percent of the time, then aim for 80 percent. Any movement toward more plants and fewer animal products can improve your health!

## Resources

These resources are for informational purposes only. They do not necessarily represent an endorsement of their content, recommendations, or guidelines by Kaiser Permanente.

## Websites with Recipes and More

- forksoverknives.com/category/recipes
- fatfreevegan.com
- drmcdougall.com/health/education/recipes
- rebootwithjoe.com/recipes
- pcrm.org/health/diets/recipes
- 21daykickstart.org
- engine2diet.com
- straightupfood.com
- nutritionfacts.org
- thepermanentejournal.org/issues/2013/spring/5117-nutrition.html



## Books

The Spectrum: A Scientifically Proven Program to Feel Better, Live Longer, Lose Weight, and Gain Health. Dean Ornish, MD.

Prevent and Reverse Heart Disease: The Revolutionary, Scientifically Proven, Nutrition-Based Cure. Caldwell B. Esselstyn, Jr., MD.

The Engine 2 Diet: The Texas Firefighter's 28-Day Save-Your-Life Plan that Lowers Cholesterol and Burns Away the Pounds. Rip Esselstyn.

The Starch Solution: Eat the Foods You Love, Regain Your Health, and Lose the Weight for Good! John A. McDougall, MD, and Mary McDougall.

Eat to Live: The Amazing Nutrient-Rich Program for Fast and Sustained Weight Loss. Joel Fuhrman, MD.

The Complete Idiot's Guide to Plant-Based Nutrition. Julieanna Hever, MS, RD, CPT.

The China Study: The Most Comprehensive Study of Nutrition Ever Conducted and the Startling Implications for Diet, Weight Loss, and Long-Term Health. T. Colin Campbell, PhD, and Thomas M. Campbell II, MD.

21-Day Weight Loss Kickstart: Boost Metabolism, Lower Cholesterol, and Dramatically Improve Your Health. Neal D. Barnard, MD.

## Movies

- Forks Over Knives (2011)
- Food, Inc. (2008)

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